



SI

STUDIO  
INVESTIGATIONS

# THE NEXT EINDHOVEN

URBAN DESIGN STUDIO

|

KULEUVEN

|

FALL 2014

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# THE NEXT EINDHOVEN





# THE NEXT EINDHOVEN

STUDIO URBAN DESIGN

Eindhoven is a regional city in the southeast of the Netherlands. At present the city reads as a superposition of different urban structures. The evolution of Eindhoven seems like a recurrent process of writing the city upon the city. What started as a collection of six villages was overwritten by the company town generated by Philips Industries. Later came the industrial city and what is sometimes labelled as the reconstructed city. As industry is leaving, Eindhoven is attempting to redefine itself. The last decade, it developed in this respect, and anchored on the presence of a technical university, a high tech campus and numerous technological spin offs, the ambition to become Holland's main brain port, again introducing a new urban structure upon the previous ones.

As such, most of Eindhoven's remarkable development from a small dormant provincial city to the contemporary regional centre in the Netherlands, took place in the car era and all planning has taken the presence of the car extremely serious. Eindhoven is in that respect without any doubt a car city, a city planned for and with the car. And planned, it has been! In every successive urban form, the city was dominated by infrastructure, in particular by railways, parkways and later on highways. These infrastructures unfortunately divide the city spatially in isolated neighbourhoods. The highway system simply introduces brutal ruptures in the urban territory.

Eindhoven without doubt benefited from conscious planning efforts of the past. The general plan of de Casseres for Eindhoven is until today one of the earmarking urban plans of the 20th century in the Netherlands. Also Bakema and Vandenbroek left an imprint on the development of the city. But as Eindhoven benefited, it also has to bear the consequences of the misconceptions of planning episodes of the past. Christopher Alexander's famous thesis

on 'the city is not a tree' finds a very clear counter illustration in the hierarchical and traffic orientated structure of Eindhoven.

Another remarkable characteristic for a city that is the result of so many conscious planning efforts is the underpresence of useful public space. The city has indeed very few conventional public spaces. Public space in Eindhoven seems to be over-dimensioned infrastructural spaces dominated by cars or trains.

It is clear that the era of the car will soon to be coming to its end. Post-carbon times are coming and new energy sources and forms of mobility are developing. Soon the impressively oversized infrastructures of Eindhoven will become redundant.

In the urban design studio we focused on the next Eindhoven; on the role of the dominant infrastructures in the city centre, on the potentials these infrastructures offer to invent new public spaces, on introducing new urban destinations and urban quarters and on reusing the vacant industrial sites that once dominated the city's form and functioning. We developed urban strategies that, while aiming to re-invent Eindhoven, play on the potentials and (recycling and up-cycling) of existing characteristics of Eindhoven. These strategies are based on an interpretation and reading of the city. The projects in this booklet illustrate these strategies.



# THE NEXT EINDHOVEN

## Requalifying infrastructure

Menglin Li, Amaranta Vargas Mendoza, Fitri Maharani Indra, Wenbo Fu, Simone Bergoff, Margarita Macera

The Next Eindhoven will be a multi-modal, permeable city, punctured with multiple destinations where the car-is-guest. It will be a city where mobility is about more than just destinations. Mobility will be an experience in and of itself. It will be a city that allows for ease of transition between scales - from regional, to city and neighbourhood scales, prioritizing the pedestrian.

We interpret the city as an 'X' figure, composed of a hard and soft leg existing within a radio concentric structure. The canal forms the hard leg. The Dommel River is the soft leg.

The urban design proposal will enhance the 'X' figure to requalify the infrastructure and bring to the fore the next Eindhoven. The city and its neighbourhoods are currently fragmented and segregated. The requalification of the infrastructure will on the contrary connect them.

The existing canal system of Eindhoven links into a larger canal system which is historically important at a local and regional scale. The Dommel river 'disappears' in the city centre.

We propose to create a new mobility system that is hinged on a continuous canal. Water transportation, through water taxis, will run parallel to bike, e-bikes and pedestrians. The urban design scheme proposes to downgrade the highways at strategic points where the 'X' meets the ring road.

In addition the urban design project proposes micro-topography to address shortcomings in the city's urban stormwater system, identified as having limited capacity.

The proposed Central Park zoom area focusses on addressing the presence of the stadium, railway and parkway, here the 'X' re-qualifies and adds value to the urban environment.

The proposed Creative Park, running north-south along the Dommel, will demonstrate that the soft leg contributes to the urban activities combining its recreational and ecological functions into the city. It reveals the river as an urban figure.



CANAL

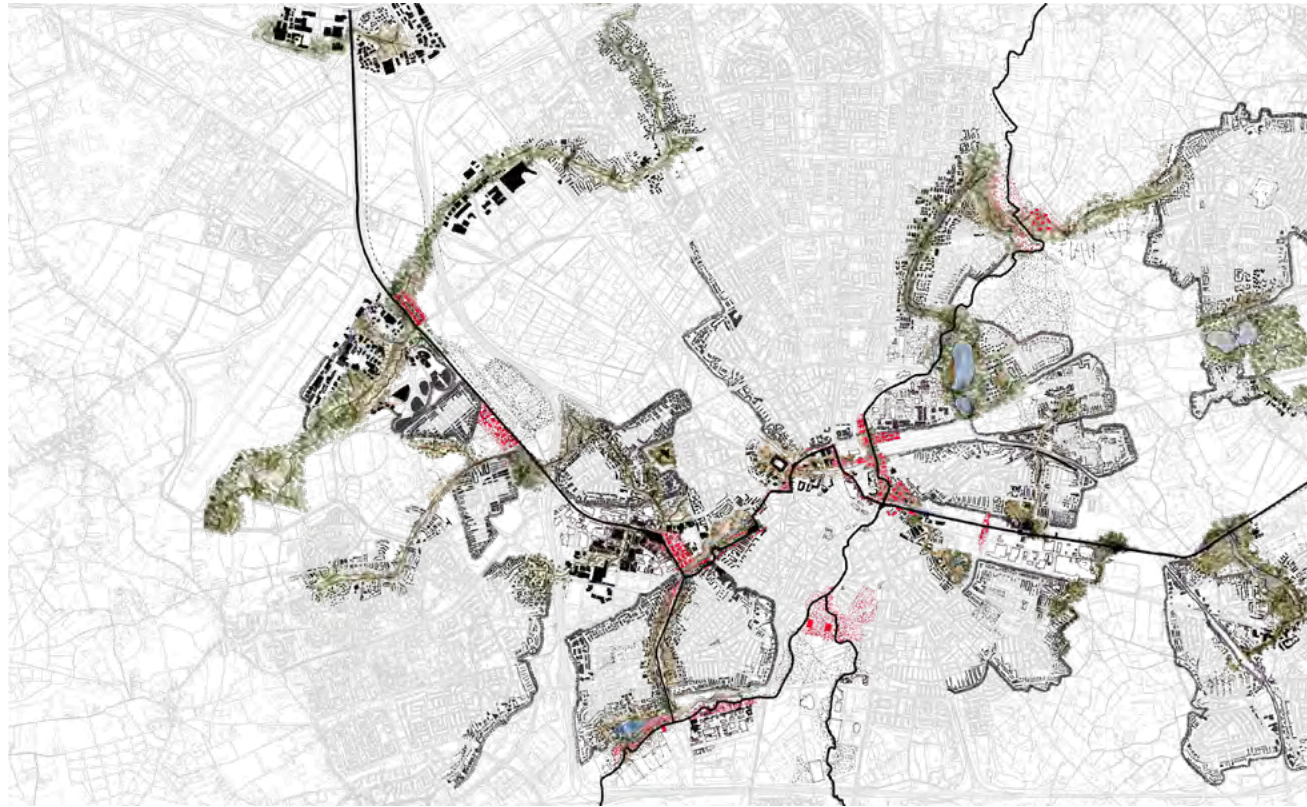


DOMMEL



THE X FIGURE IS A POTENTIAL INSTRUMENT TO RESTRUCTURE THE CITY





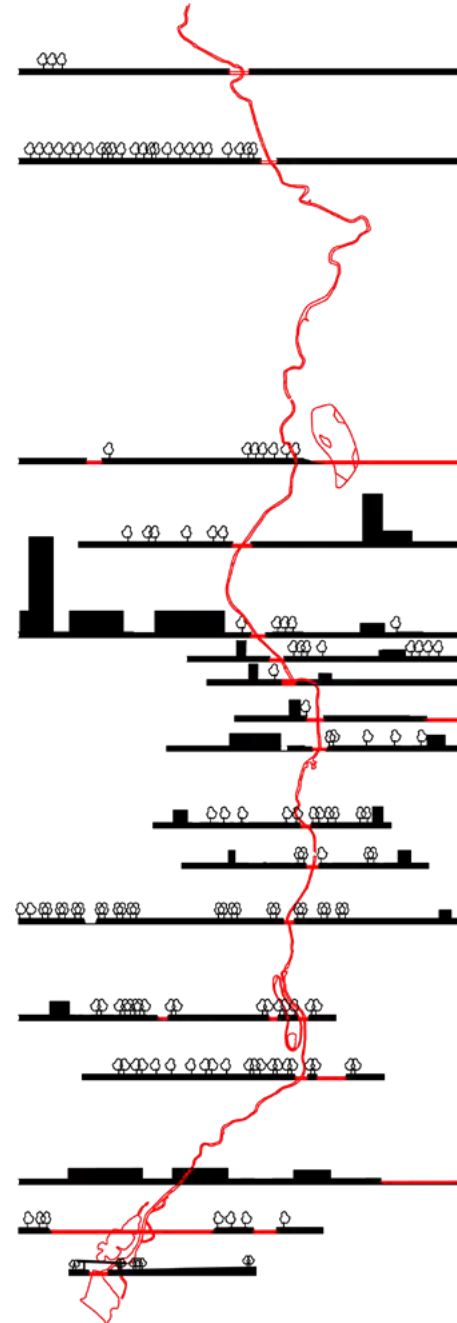
THE STRUCTURING CAPACITY OF THE X



THE X IN RELATION TO A RENEWED MOBILITY SYSTEM



THE X AND THE WATER MANAGEMENT OF EINDHOVEN



THE SOFT LEG IN SECTION



ZOOM OF THE HARD LEG



ZOOM OF THE SOFT LEG



BRIDGING NODES AND LINES

Interfaces in dialogue

Marion Mukolwe, Militza Carillo, Valentine Van den Eynde

The concept is based on the complexity of juxtaposed identities in Eindhoven. We decipher this complexity as a network of characteristic lines and points where these identities come together creating urban destinations and programmatic tension in the city.

Six axes with different specificities form a connection system that simultaneously improves the unity/cohesion of the city. This interpretation of the city allows the rewriting of the super scale of the industrial city at a human scale. The network becomes the means to bridge the nodes (urban destinations) and the lines at various scales; regionally, city-wide and local neighbourhoods.

Zooms are made where three major lines meet because of its strategic value to the city and the potential of the large areas of underutilized space along the railway and the Dommel River. The concept of nodes and lines is taken to a deeper level where we realize that the lines and nodes produce interfaces both in the horizontal and vertical planes. This system of interfaces is between four different urban fabrics separated by hurdles (River and railway) that create difficulty in accessing the opposite sides, emphasizing a vertical interface where the pedestrians, bikes, cars and trains have inverted levels of importance. The strategy is to create dialogue in this area, where there is no exchange and no urban life by use of these vertical and horizontal interfaces. This dialogue will be achieved through place-making in a hierarchy of spaces and levels with pedestrian oriented urban patterns. The strategies to achieve dialogue between the interfaces are: to resolve and reinterpret the extreme levels; to pacify the streets; to densify large open and underutilized spaces; to connect the opposite sides of the railway with a bridge that is also a destination; to give higher importance to the pedestrian and cyclist by providing them with more circulation options; and to use the surrounding landscape as the mediator of space and uses.



DIAGRAMS OF NODES AND LINES



LINES, POINTS AND IDENTITIES

SPATIAL CHARACTERISTICS OF THE LINES AND POINTS





PROJECT SECTION OF THE BOULEVARD



SECTION OF BEFORE & AFTER SITUATION



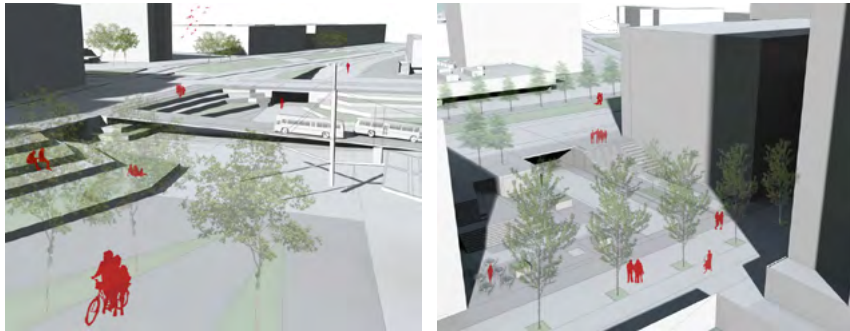
PROJECT SECTION OF THE BRAINPORT



THE STATION AS INTERFACE ON THE SCALE OF THE CITY



UNDERPASSESS, BRIDGES AND CONNECTIONS AS INTERFACES ON THE SCALE OF THE NEIGHBOURHOOD



THE INTERFACE ON A MICRO-SCALE, CONNECTING LEVELS, PROGRAMS AND PUBLIC SPACES

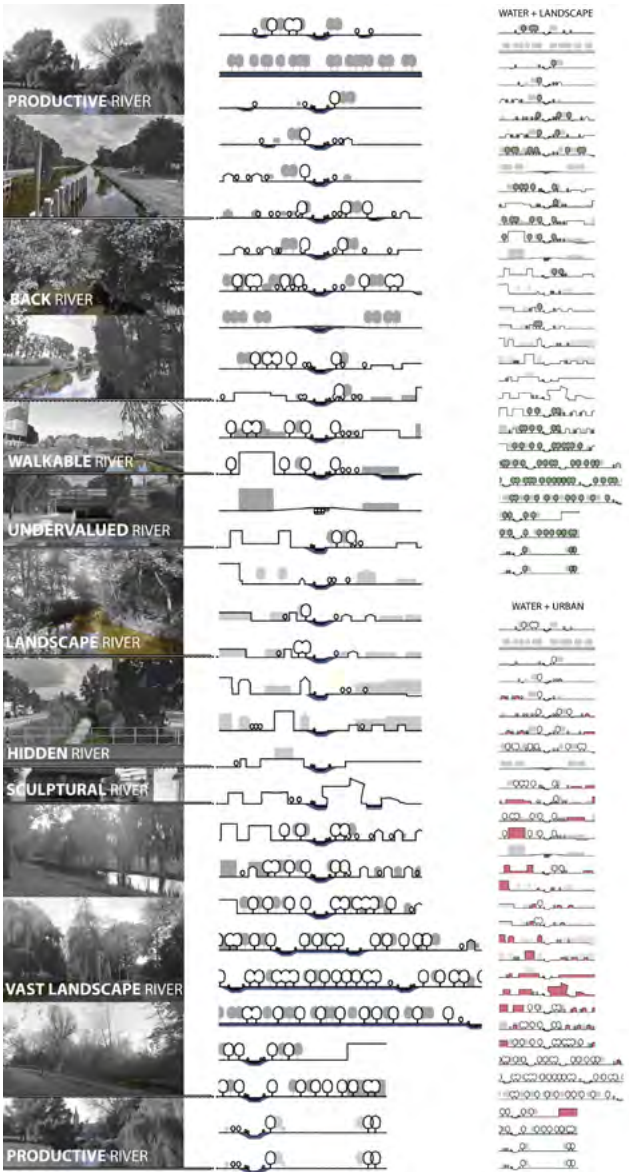


(RE)DEFINING WATER, LANDSCAPE AND URBAN SYNERGIES

Bernadette Gordyn, Danny Osorio Gaviria, Valentina Amaya

Infrastructures in Eindhoven are not just functional Infrastructures in Eindhoven are not just functional elements. They are potential landscape figures: a waterscape, a park or an urban landscape. Currently these landscape lines coexist, as there is no relation or dialogue between the different landscape elements. Furthermore they are not coherent landscapes. Although one landscape element dominates the open space of the infrastructure lines, they consist of sequences in which water, park and urban are mixed in alternating combinations. In order to understand this complex mix in the open space structure of Eindhoven a focus is made on three North – South lines: the Dommel River, the Kennedylaan, Parkway and the Boschdijk Avenue. The most interesting open spaces in these linear configurations were those sites where the three identities collided: the transversal connections between the three lines and the nodes where the three landscapes come together in juxtaposition.

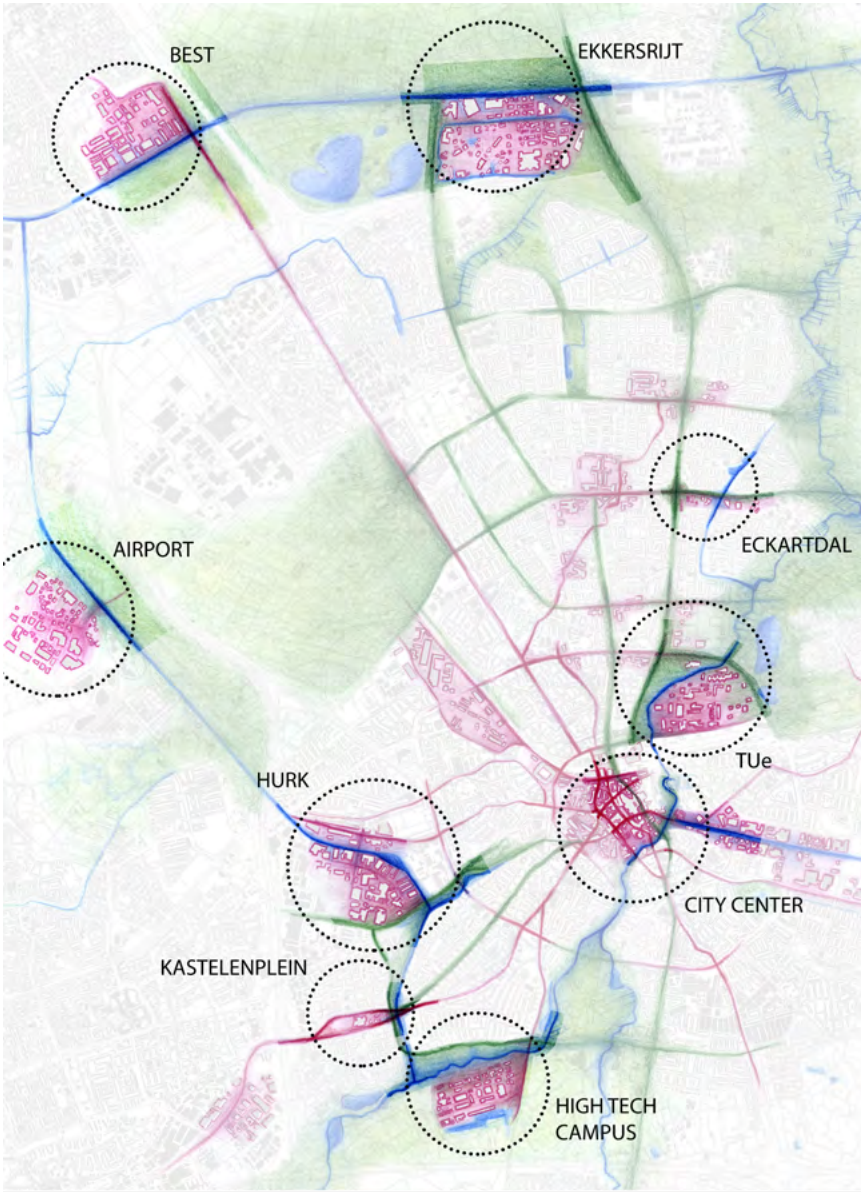
The potential of this reading of the city for the next Eindhoven in two zooms: the city centre where the urban character dominates the almost invisible park and water elements. Here we transform the open space from an isolated commercial centre into an open space figure where water, park and urban become integrated. The transversal connection between the three landscapes becomes a complex combination of these three thus introducing a new type of public space in Eindhoven. The second zoom is Ekkersrijt in the North use the three landscapes to restructure a monofunctional peripheral office park and commercial centre. The current contrast between the forest in the north, the canal and the office park is used to restructure the office park by introducing a new urban figure putting the three landscapes in relation to each other. The new urban figure consists of patches of urban open spaces where the density in the office park changes, creating a sense of centrality.



EACH LANDSCAPE FIGURE COMBINES A DIFFERENT SEQUENCE OF WATER, PARK AND URBAN



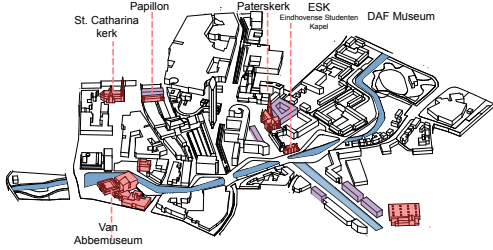
A JUXTAPOSITION OF LANDSCAPE FIGURES: WATER, PARK AND URBAN



THE CONFRONTATIONS BETWEEN DIFFERENT LANDSCAPE FIGURES

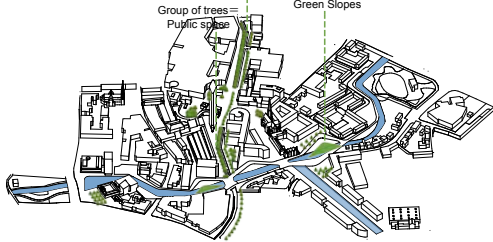


MAIN DESTINATIONS AND NEW BUILDINGS

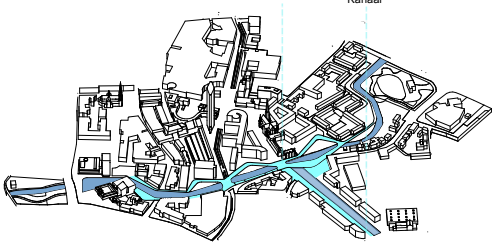


THE CENTRE: STRATEGY

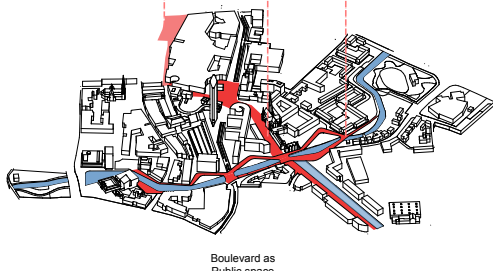
TREES & LANDSCAPE BODIES



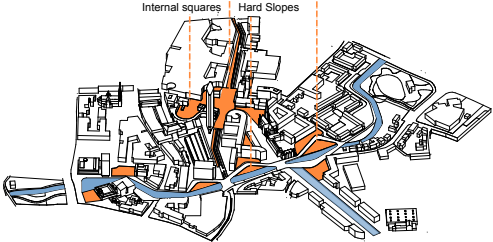
WATERSCAPES



PEDESTRIAN STREETS



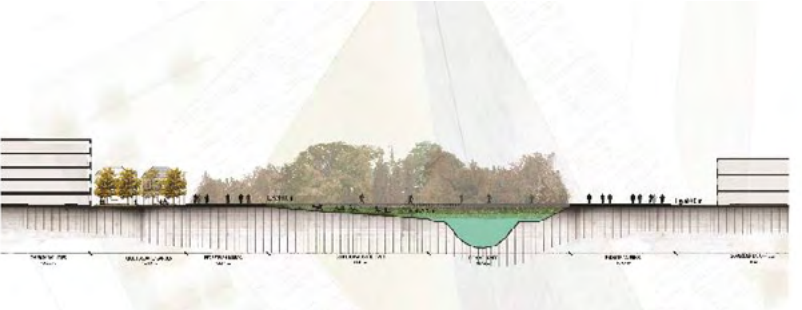
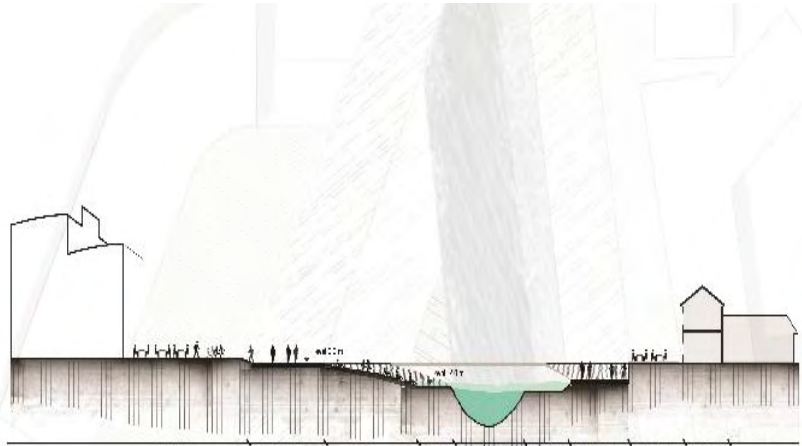
PUBLIC SPACES



THE CENTRE: CURRENT SITUATION



THE CENTRE: CONCEPT



A VISIBLE AND ACCESSIBLE DOMMEL IN THE CENTRE



ZOOM OF THE THREE LANDSCAPES IN THE CENTRE



TOOL BOX OF STRATEGIC INTERVENTIONS AND OBJECTIVES



WEAVING THE CARPET CITY

Marisela Garbati, Irina Grcheva, Isabelle Matton, Manuel Aliaga Martinez, Foteini Michailidou

Eindhoven evolved from a collection of six villages into a dispersed collection of urban patches only related to each other by their proximity and similar car accessibility. This juxtaposition of patches creates an image of Eindhoven as a carpet city. The patches are not only spatially isolated, they are also a juxtaposition of different times, activities and functions: residential areas, elements of the landscape and industrial activity and services.

The distance between adjacent patches is extended by Eindhoven’s over developed and over sized infrastructures. Despite their oversizing and overdevelopment, train tracks, parkways, canals or motorways do not form a coherent structure holding the carpet together. Infrastructures increase the separation of the patches by its functional in-between spaces .

However these in-between spaces emerge as a conceptual and potential spaces to rethink the city. They can be considered as the stitches holding the carpet together. In order to weave the carpet city, four strategic guidelines were set: 1. Accessibility: making the stich accessible mainly for pedestrians and bikes. 2 Reuniting pieces: connecting pieces that were cut by infrastructure. 3 Articulating spaces: creating defined edges that provide a sense of orientation between one patch and the other. 4 Creating or triggering urban destinations: creating the conditions for (new) civic activities and urban destination.

The way these stitches will value the complexity of the Eindhoven carpet and change the image of the city is explored in a zoom near the PSV soccer stadium and the station area. Both stitches are mediating figures. In the stadium stitch open space is the mediating aspect while in the station stitch the interaction of program and open space relates the surrounding patches. The stadium stitch shows the strategic importance of stitching. Stitching does not automatically imply connecting every patch on different scale levels. The separation between the stadium and the small-scale neighbourhood north of the railway is strengthened valuing separation in the carpet as a quality.



INTERSTITIAL SPACES

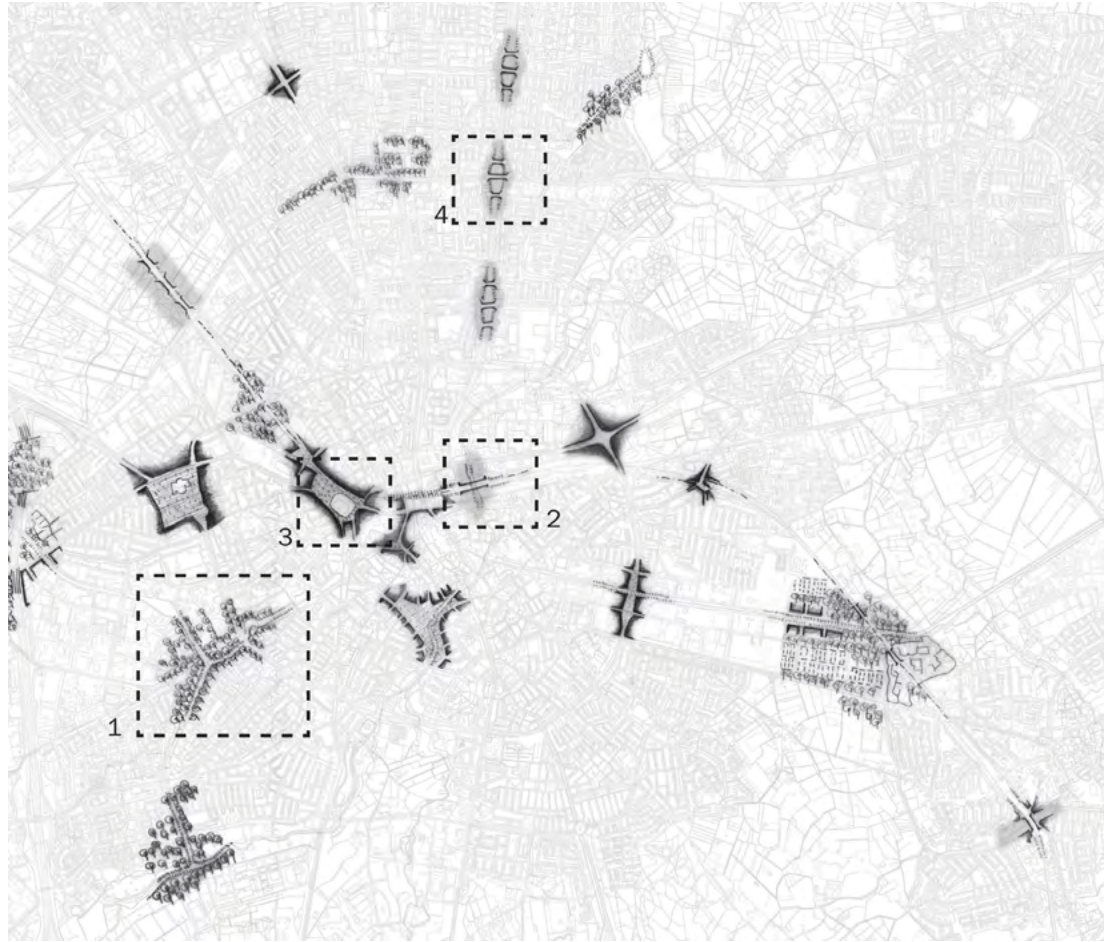


PATCHES AND INTERSTITIAL SPACES AS STITCHES



EINDHOVEN AS A PATCHWORK





STRATEGIC INTERVENTIONS TO STITCH THE CARPET



THE DOMMEL UNDERPASS CURRENT SITUATION



PLAN FOR THE STADIUM AS A STITCH THAT UNITES AND SEPARATES



THE DOMMEL UNDERPASS AS STITCH, AS NEW PUBLIC SPACE



THE STADIUM STITCH: USING THE INFRASTRUCTURE TO STITCH AND SEPARATE



# EINDHOVEN INTERTWINED

Jingyue Yan, Minh Trang Khong, Piedad Hoyos

The current Eindhoven is a palimpsest of different city models. In this superposition of city models, the ring structure is a dominant configuration. It defines an inside and outside, suggests a dominant city centre and cuts through neighborhoods and landscapes. And yet with the introduction of the parkways and the highway grid, the city does actually no longer has to function as a radio concentric structure. Parts of the ring are indeed already obsolete as the circular movement is not a dominant movement in the accessibility of the city. Nobody actually drives around the city.

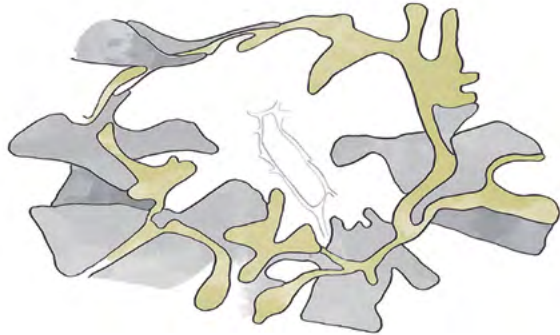
Consequently, part of the ring is erased. This establishes new relations between formerly isolated neighborhoods, functions and landscapes. Erasing the ring allows to intertwine Eindhoven. A surgery plan explores and understands the urban relations that needed to be restored or “healed” In this way the former space of the ring becomes at the same time an urban destination and a landscape figure. Furthermore by erasing the infrastructure of the ring, the opportunity is created to introduce a new transport system favoring pedestrians and bikers.

The potential of this strategy is tested in the most complex section of the current ring, where urban destinations, landscape elements and neighborhoods overlap and collide.

The surgery plan is refined in the zoom introducing new relations between currently isolated and separated areas by changing densities and by introducing a new open space structure. The intertwining strategy is reinforced by introducing landscape spines, in the zoom in the form of three spines. The green spines are a reinterpretation and requalification of three kinds of available green: the public green space, infrastructure green space and abandoned space. The spines connect neighborhoods –the neighborhood public spaces- or separate conflicting programs and scales–the urban forest-. With the spines we introduce a coherent landscape figure replacing the current addition of green fragments thus erasing the ring as an infrastructural barrier and turning it into a new urban destination.



THE RING AS A NEW URBAN OPEN SPACE AND DESTINATION



CONCEPT DIAGRAM INTERTWINING



THE LANDSCAPE LAYER



THE URBAN LAYER



PLAN OF EINDHOVEN INTERTWINED





ZOOM OF THE INTERTWINED ZONE, STRUCTURED BY A SERIES OF SPINES



GREEN SPINES RESTRUCTURE THE SITES  
AROUND THE FORMER RING



THE DIFFERENT SPINES IN CONCEPT



THE THREE SPINES EACH HAVE A CHARACTERISTIC SPATIAL LAY-OUT



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**More info?**

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